INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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*Frank O'Bannon*
Governor

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Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

July 29, 2003

TO: Interested Parties / Applicant

RE: **General Motors corporation, MDF, Marion Plant** **MSM053-17795-00004**

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

# Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

FNPERMOD.wpd 8/21/02

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July 29, 20023

Ms. Cathy Clegg
General Motors Corporation, MFD, Marion Plant
P.O. Box 778
Marion, IN 46952-0036

Re: **053-17795**
Minor Source Modification to:
Part 70 Operating Permit No.: **T 053-6852-00004**

Dear Ms. Clegg:

General Motors Corporation, MFD, Marion Plant was issued Part 70 Operating Permit **T 053-6852-00004** on January 19, 1999 for an automotive metal parts manufacturing source. An application to modify the source was received on June 2, 2003. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Craig J. Friederich, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. XX or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
CJF/MES
cc: File - Grant County
Grant County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Branch - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

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# PART 70 OPERATING PERMIT
# OFFICE OF AIR QUALITY

## General Motors Corporation, MFD, Marion Plant
## 2400 West Second Street
## Marion, Indiana 46952

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| | |
|---|---|
| Second Minor Source Modification 053-17795-00004 | Sections Affected: A.2, D.3 |
| Issued by:Original signed by Paul Dubenetzky<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: July 29, 2003 |

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates an automotive metal parts source.

| | |
|---|---|
| Responsible Official: | Cathy Clegg |
| Source Address: | 2400 West Second Street, Marion, Indiana 46952 |
| Mailing Address: | P.O. Box 778, Marion, Indiana 46952 |
| SIC Code: | 3465 |
| County Location: | Grant |
| County Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Permit Program<br>Major Source, under PSD Rules;<br>Minor Source, Section 112 of the Clean Air Act |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) One (1) natural gas fired boiler, identified as UT-001, rated at 72 MMBtu/hr, and exhausting to stack 1.

(2) One (1) natural gas fired boiler, firing No. 2 fuel oil as back-up, identified as UT-002, rated at 96 MMBtu/hr, exhausting to stack 2.

(3) One (1) spreader stoker coal-fired boiler, identified as UT-003, rated at 96 MMBtu/hr, using a multiple cyclone w/o fly ash reinjection for particulate control, and exhausting to stack 3.

(4) One (1) air atomized spray paint booth, identified as MT-001, used for maintenance painting, equipped with dry filter to control overspray, and exhausting to stack 4.

(5) Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(2) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(3) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu per hour, except where total capacity of equipment operated by one

## SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(5) Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.3.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), the allowable PM emission rate from the Temporary natural gas fired boiler(s), to be used as back-up, rated at 40.0 million British thermal units per hour, total shall not exceed 0.247pounds per million British thermal units heat input:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

**Compliance Determination Requirements**

D.3.2 Natural Gas

The temporary natural gas fired boiler(s), to be used as back-up, rated at 40.0 million British thermal units per hour, total, shall burn only natural gas. Any change or modification that would allow these boilers to burn any fuel other than natural gas will need prior approval from the IDEM, OAQ.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

There are no specific Compliance Monitoring Requirements applicable to these emission units.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.3.3 Record Keeping Requirements

(a) Pursuant to 40 CFR 60.48c(g), the owner or operator shall record and maintain records of the amounts of each fuel combusted during each day.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for Part 70
## Minor Source and Minor Permit Modifications

**Source Background and Description**

| | |
|---|---|
| **Source Name:** | **General Motors Corporation, MFD, Marion Plant** |
| **Source Location:** | **2400 West Second Street, Marion, Indiana 46952** |
| **County:** | **Grant** |
| **SIC Code:** | **3465** |
| **Operation Permit No.:** | **T 053-6852-00004** |
| **Operation Permit Issuance Date:** | **January 19, 1999** |
| **Minor Source Modification No.:** | **053-17795-00004** |
| **Minor Permit Modification No.:** | **053-17418-00004** |
| **Permit Reviewer:** | **Craig J. Friederich** |

The Office of Air Quality (OAQ) has reviewed a modification application from General Motors Corporation, MFD, Marion Plant relating to the construction and operation of the following emission units and pollution control devices:

Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.

**History**

On April 9, General Motors Corporation, MFD, Marion Plant submitted an application to the OAQ requesting to convert their existing coal fired boiler, identified as UT-002, to a natural gas fired boiler with No. 2 fuel oil as back-up. This Minor Source Modification was issued June 9, 2003. On June 2, 2003, General Motors Corporation, MFD, Marion Plant submitted an application to the OAQ to add a temporary natural gas fired boiler(s), rated at no more than a total of 40.0 million British thermal units per hour. The temporary boiler(s) will be used only as necessary should one of the primary boilers become temporarily inactive.

The inclusion of the temporary backup boiler(s) in the Title V permit is a separate project that is unrelated from an economic and engineering perspective to the conversion of boiler UT-002 to cleaner fuels. This separate project is something that General Motors has done at other plants simply to have backup power in the event one of the boilers at a plant becomes unavailable. The physical activities to allow for a temporary boiler are wholly distinct from the activities that are required to convert boiler UT-002 to cleaner fuels. Similarly, the funding for the conversion of UT-002 to cleaner fuels is justified on the basis of assisting the plant in ensuring ongoing environmental compliance with federal and state regulatory requirements (e.g., the upcoming boiler MACT standards). Therefore, based on these reasons, the IDEM, OAQ has determined that even though these two (2) applications have been received within twelve (12) months of each other, they are separate and independent of each other and they should be reviewed separately pursuant to 326 IAC 2-2 (PSD).

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

There is no stack information for this modification.

**Recommendation**

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 2, 2003.

**Emission Calculations**

See pages 1 and 2 of 2 of Appendix A of this document for detailed emissions calculations

**Potential To Emit of Modification**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| **Pollutant** | **Potential To Emit** (tons/year) |
|---|---|
| PM | 0.333 |
| $PM_{10}$ | 1.33 |
| $SO_2$ | 0.105 |
| VOC | 0.964 |
| CO | 14.7 |
| $NO_X$ | 17.5 |

| **HAPs** | **Potential To Emit** (tons/year) |
|---|---|
| TOTAL HAPs | 0.331 |

**Justification for Modification**

The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4), because the modification has the potential to emit $NO_X$ of greater than ten (10) tons per year and less than twenty-five (25) tons per year. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit

as a Minor Permit Modification (MPM 053-17418-00004) in accordance with 326 IAC 2-7-12(b)(1). The Minor Permit Modification will give the source approval to operate the proposed emission unit(s).

**County Attainment Status**

The source is located in Grant County.

| Pollutant | Status |
|---|---|
| $PM_{10}$ | attainment |
| $SO_2$ | attainment |
| $NO_2$ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Grant County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant | Emissions (tons/year) |
|---|---|
| PM | greater than 250 |
| $PM_{10}$ | greater than 250 |
| $SO_2$ | greater than 250 |
| VOC | less than 100 |
| CO | greater than 250 |
| $NO_X$ | greater than 250 |

| HAPs | Potential To Emit (tons/year) |
|---|---|
| Single HAP | greater than 10 |
| Combined HAPs | greater than 25 |

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the Technical support document for T 053-6852-00004.

**Potential to Emit of Modification After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

| Pollutant | PM (tons/yr) | $PM_{10}$ (tons/yr) | $SO_2$ (tons/yr) | VOC (tons/yr) | CO (tons/yr) | $NO_x$ (tons/yr) |
|---|---|---|---|---|---|---|
| Proposed Modification | 0.333 | 1.33 | 0.105 | 0.964 | 14.7 | 17.5 |
| Net Emissions | 0.333 | 1.33 | 0.105 | 0.964 | 14.7 | 17.5 |
| PSD Significant Level | 25 | 15 | 40 | 40 | 100 | 40 |

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

**Federal Rule Applicability**

(a) This significant permit modification does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1 for all criteria pollutants.

(1) with the potential to emit before controls equal to or greater than the major source threshold for all criteria pollutants;

(2) that is subject to an emission limitation or standard for any criteria pollutants, and

(3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this modification.

(b) The temporary boiler(s), are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because they will be constructed after the applicability date of June 9, 1989 and will have a heat input capacity greater than ten (10) million British thermal units per hour and less than one-hundred (100) million British

thermal units per hour. Pursuant to 40 CFR 60.48c(g), the owner or operator shall record and maintain records of the amounts of each fuel combusted during each day.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.

(d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are applicable to this source because the source is a major source of HAPs (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source includes one or more units that belong to one or more source categories affected by the Section 112(j) Maximum Achievable Control Technology (MACT) Hammer date of May 15, 2002.

(1) This rule requires the source to:

(A) Submit a Part 1 MACT Application by May 15, 2002; and

(B) Submit a Part 2 MACT Application for each affected source category in accordance with the appropriate Part 2 MACT Application deadline listed in Table 1 to 40 CFR 63, Subpart B for the affected source category.

(2) The Permittee submitted a Part 1 MACT Application on May 6, 2002.

(3) Pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The MACT and the General Provisions of 40 CFR 63, Subpart A will become new applicable requirements, as defined by 326 IAC 2-7-1(6), that must be incorporated into the Part 70 permit. After IDEM, OAQ receives the initial notification, any of the following will occur:

(A) If three or more years remain on the Part 70 permit term at the time the MACT is promulgated, IDEM, OAQ will notify the source that IDEM, OAQ will reopen the permit to include the MACT requirements pursuant to 326 IAC 2-7-9; or

(B) If less than three years remain on the Part 70 permit term at the time the MACT is promulgated, the Permittee must include information regarding the MACT in the renewal application, including the information required in 326 IAC 2-7-4(c); or

(C) The Permittee may submit an application for a significant permit modification under 326 IAC 2-7-12 to incorporate the MACT requirements. The application may include information regarding which portions of the MACT are applicable to the emission units at the source and which compliance options will be followed.

**State Rule Applicability - Individual Facilities**

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is a major source pursuant to 326 IAC 2-2. This modification is a minor modification pursuant to 326 IAC 2-2 because the net emissions from the addition of the temporary boiler(s), rated at 40.0 million British thermal units per hour, are less than the PSD significant levels.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The temporary natural gas fired boiler(s), rated at 40.0 million British thermal units per hour, total, must comply with the requirements of 326 IAC 6-2-4.The emission limitations are based on the following equation given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 40.0 million British thermal units per hour boiler, is 304 million British thermal units per hour.

$Pt = 1.09/(304)^{0.26} = 0.247$ lb/mmBtu heat input

Based on page 1 of Appendix A, the potential PM emission rate is:

1.33 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.303 lb/hr
(0.303 lb/hr / 40.0 mmBtu/hr) = 0.008 lb PM per mmBtu

Therefore, temporary natural gas fired boiler(s), rated at 40.0 million British thermal units per hour, total, will comply with this rule.

**Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous

compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no new applicable Compliance Monitoring Requirements to the proposed facilities at this source.

**Proposed Changes**

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

**(5) Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.**

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]**

**(5) Temporary natural gas fired boiler(s), to be used as back-up, rated at: 40.0 million British thermal units per hour, total.**

**Emission Limitations and Standards [326 IAC 2-6.1-5(1)]**

**D.3.1 Particulate Matter (PM) [326 IAC 6-2-4]**

**Pursuant to 326 IAC 6-2-4(a), the allowable PM emission rate from the Temporary natural gas fired boiler(s), to be used as back-up, rated at 40.0 million British thermal units per hour, total shall not exceed 0.247pounds per million British thermal units heat input. The emission limitations are based on the following equation given in 326 IAC 6-2-4:**

$$Pt = 1.09/Q0.26$$

**where:**

**Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input**

**Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the name-plate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.**

**Compliance Determination Requirements**

**D.3.2 Natural Gas**

**The temporary natural gas fired boiler(s), to be used as back-up, rated at 40.0 million British thermal units per hour, total, shall burn only natural gas. Any change or modification that would allow these boilers to burn any fuel other than natural gas will need prior approval from the IDEM, OAQ.**

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

**There are no specific Compliance Monitoring Requirements applicable to these emission units.**

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.3.3 Record Keeping Requirements**

**(a) Pursuant to 40 CFR 60.48c(g), the owner or operator shall record and maintain records of the amounts of each fuel combusted during each day.**

**(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

**Conclusion**

The construction and operation of this proposed modification shall be subject to the conditions of the attached Part 70 Minor Source Modification No. 053-17795-00004 and Minor Permit Modification No. 053-17418-00004.

# Appendix A: Emissions Calculations
## Natural Gas Combustion Only
## MM BTU/HR <100

**Company Name:** General Motors Corporation, MFD, Marion Plant
**Address, City IN Zip:** 2400 West Second Street, Marion, IN 46952
**MSM:** 053-17795
**Plt ID:** 053-00004
**Reviewer:** Craig J. Friederich
**Date:** June 2, 2003

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 40.000 | 350.40 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.90 | 7.60 | 0.600 | 100 **see below | 5.50 | 84.0 |
| Potential Emission in tons/yr | 0.333 | 1.33 | 0.105 | 17.5 | 0.964 | 14.7 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**HAPs Emissions**

**Company Name:** General Motors Corporation, MFD, Marion Plant
**Address City IN Zip:** 2400 West Second Street, Marion, IN 46952
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HAPs - Organics

| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 0.002 | 0.001 | 0.075 | 1.80 | 0.003 |
| Potential Emission in tons/yr | 0.00037 | 0.000210 | 0.0131 | 0.315 | 0.00060 |

HAPs - Metals

| | Lead | Cadmium | Chromium | Manganese | Nickel | Total HAPs |
|---|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 0.0005 | 0.001 | 0.001 | 0.0004 | 0.002 | |
| Potential Emission in tons/yr | 0.000088 | 0.000193 | 0.000245 | 0.000067 | 0.00037 | 0.331 |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.